Federal Accounting Standards Advisory Board

May 12, 2006

Memorandum

To: Members of the Board

From: Eileen W. Parlow, Assistant Director

Through: Wendy M. Comes, Executive Director

Subject: Department of Defense Request for Assistance: Inventory Held for Repair- Tab F[1]

Objective: To discuss response to a Department of Defense request for assistance in accounting for inventory held for repair.

Background:
At September 30, 2005, Federal Government-wide repairable inventory was reported at $28.4 billion, virtually all of which was held by the Department of Defense (DoD). In addition, Federal Government-wide Operating Materials and Supplies "Held for Repair" was reported at $17.4 billion. (See table, Attachment A) A large proportion of the DoD's annual procurement spending is for repair and remanufacture.

Issue:
On March 16, 2006, the DoD Deputy Chief Financial Officer (DCFO) sent a letter requesting FASAB's assistance regarding accounting for inventory held for repair (Attachment B). On May 2, 2006, FASAB staff met with representatives from the Office of the Under Secretary of Defense (Comptroller) (OUSD(C)), the Government Accountability Office (GAO) and the DoD Office of the Inspector General (OIG) to discuss the DoD DCFO's request.

The following issues were identified in the DoD DCFO's letter:

1. Definition: The category of "Inventory Held for Repair" is required to be reported but is not defined in SFFAS 3.[2] This has resulted in confusion. For example, the concept of "held for repair" has been interpreted to be limited to items that were damaged while awaiting sale.

[1] The staff prepares Board meeting materials to facilitate discussion of issues at the Board meeting. This material is presented for discussion purposes only; it is not intended to reflect authoritative views of the FASAB or its staff. Official positions of the FASAB are determined only after extensive due process and deliberations.
[2] See SFFAS 3, *Accounting for Inventory and Related Property,* paragraphs 32-34.

2. Valuation: Existing standards require the valuation of items to be calculated using the value of a serviceable item as a base, less the estimated cost to repair. This has been interpreted to mean that such items must be continually revalued if the entity is using the "moving average cost" for overall inventory valuation. This method is cumbersome and may not be the most cost-effective.

   The DoD's letter stated that capitalization of repair costs should not be limited by the cost of an item currently available as "new." However, the representatives from GAO, DoD OIG, as well as FASAB staff, disagree with the concept of unlimited capitalization of repair costs. Unlimited capitalization of repair costs could result in the capitalization of both normal and abnormal repair costs, and also could result in the valuation of a repaired item being higher than that of an item currently available for purchase as "new."

Recap of Meeting: DoD OUSD(C), DoD OIG, GAO and FASAB staff

At the May 2, 2006 meeting, the representatives from the GAO and the DoD OIG said that the DoD should present data to indicate that the DoD would be able to implement the guidance that is being requested. The GAO representatives stated, and the DoD OUSD(C) representative did not deny, that the DoD is generally charging all repair/remanufacture costs to expenses of the period, and its financial accounting systems are currently unable to distinguish repair/remanufacture costs from other costs, or to identity "normal" versus "abnormal" repair costs. The GAO representatives stated that the DoD should provide documentation showing how the requested guidance would be implemented in its budgetary, proprietary and logistics systems, including debits and credits.

The DoD OUSD(C) has developed some documentation for internal guidance, which is provided in this package (Attachment D). The draft guidance does not yet include limits on the capitalization of repair cost.

Additional issue: Operating Materials and Supplies

If the Board decides that staff should develop guidance to address the DoD DCFO's request, an additional issue should be addressed. There is currently no guidance for how to account for items held for repair/remanufacture when they are accounted for in a general fund, rather than in a working capital fund. When such items are accounted for in a general fund, there is no "sale" transaction, because the item is "issued" rather than "sold." The GAO representatives at the May 2nd meeting noted that since the events are similar or identical, the accounting should be as parallel as possible. The DoD DCFO representative said that a letter request could be provided if necessary, so that this issue would be included in the guidance to be developed. Such items are currently accounted for as "Operating Materials and Supplies," although staff believes that they should be a sub-category of Property, Plant and Equipment (PP&E). The classification as PP&E would be consistent with current international private-sector accounting standards.[3]

[3] See International Accounting Standard 16, paragraph 8.

Questions for the Board:

Staff has identified two options for responding to the DoD's request:

A. Concur with the GAO and DoD OIG that DoD should provide data to support the assertion that the current valuation method is not cost-effective, and decline to develop amended guidance at this time, or

B. Draft an exposure draft with recommended amendments to SFFAS 3 (Inventory and Related Property) and SFFAS 6 (PP&E). A preliminary draft of the text of such an amendment is attached at Tab C.

    1. Which of the above options is preferable to the Board?

    2. If the Board prefers Option B (develop guidance to address DoD DCFO concerns),

        a. Should the draft guidance include limits on the capitalization of repair costs?

            Staff recommendation: Staff recommends limiting the capitalization of repair costs. Staff does not recommend allowing unlimited capitalization of both normal and abnormal repair costs, or the potential valuation of a repaired item as having a higher value than the current cost of a new item.

        b. Should the draft guidance include the issue of repair/remanufacture reported in both working capital funds and general funds?

            Staff recommendation: Staff recommends yes, that proposed guidance should provide similar accounting for similar or identical events that occur in both working capital funds and general funds.

Attachments:

A. Table of Inventory and OM&S Held for Repair at September 30, 2005, by agency
B. Letter from DoD DCFO dated March 16, 2006
C. Draft text of potential amendment to SFFAS 3
D. DoD draft internal guidance.

Attachment A

Table of Federal Government-wide
Inventory and OM&S Held for Repair at September 30, 2005

Federal Government-wide
Inventory and OM&S Held for Repair at September 30, 2005

(Amounts in millions)

Agency	***Bureau***	**Inventory Held for Repair**	**OM&S Held for Repair**	**Total**
Commerce	National Oceanic & Atmospheric Admin.		39.5	39.5
Defense	All	27,961.0	17,341.7	45,302.7
Health & Human Services	Indian Health Service		1.5	1.5
Transportation	Federal Aviation Administration	414.3		414.3
Transportation	Maritime Administration		4.7	4.7
Totals		**28,375.3**	**17,387.4**	**45,762.7**

Source: Treasury FMS GFRS

Attachment B

Letter from DoD DCFO dated March 16, 2006

OFFICE OF THE UNDER SECRETARY OF DEFENSE
1 100 DEFENSE PENTAGON
WASHINGTON, DC 20301-1100

MAR **1 6** 2006

COMPTROLLER

Ms. Wendolyn Comes
Executive Director
Federal Accounting Standards Advisory
Board 441 G. Street, N.W.
Washington, DC 20548

Dear Ms. Comes:

The Department of Defense (DoD) is continuing to take steps to implement its financial management improvement plans and accounting processes. In the course of this process, we have taken a critical look at the Department's business process for the repair of inventories, and the applicability of the Statement of Federal Financial Accounting Standard (SFFAS) No. 3 as it relates to inventory repair. In line with this review, we have also researched comparable commercial processes through available web-based literature as well as through direct contact with commercial firms. Subsequent to consideration of all our findings, we have concluded that the Department's repair process is directly comparable to the private sector process typically referred to as "remanufacturing," and that our reparable carcasses (referred to as "cores" in the private sector) acquired in exchange sales for reparable items are similar, if not the same, as "raw materials" or components used in the remanufacturing process. More importantly, we have come to believe that "inventory repair" suggests a misleading process when viewed in the context of rebuilding worn and used carcasses/cores for the primary purpose of providing rebuilt items for new sales. The following paragraphs elaborate on our findings and conclusions.

Based on commercial sourced information noted above, we found that the remanufacturing process had specific characteristics that were virtually parallel regardless of product or entity (i.e., commercial or DoD). Both remanufacturing companies and the DoD acquire worn carcasses/cores through exchange sales of remanufactured items or newly procured items with financial incentives or credit given for the exchanged cores. Both inspect, disassemble, evaluate, clean, rebuild, refurbish, and restore products to "good-as-new" condition for inclusion as finished goods inventory and for sale to new customers. More importantly, both often enhance products with upgrades which incorporate new technologies, reduce obsolescence, extend useful life, increase safety, and improve reliability.

Regardless of the technical processes, or the definition attached to the process, we believe that certain, fundamental attributes must be considered in the accounting solution when inventory items are repaired:

- First, inventory, by definition, is "held for sale." Since inventory held for sale is typically found on "warehouse shelves," the repair of damaged items in current storage, and the return of those items to the warehouse is a rare or immaterial event.

- Second, since it is rare for on-the-shelve, held-for-sale items to be repaired, we can generally conclude that any large-scale inventory item repair process, whether undertaken by commercial firms or the DoD, will always be a "source-of-supply" process which provides rebuilt or remanufactured items for new sales.

- Third, it can also be concluded that rebuild processes for resale will always involve some form of market-based or incentive-based business process which provide for the return of worn or used carcasses/cores for rebuild. Carcasses/cores then become similar to raw material and, more importantly, should reflect the cost to obtain them.

- Finally, regardless of the name attached to the refurbishment process, i.e., "repair," "rebuild," "remanufacture," or other, a fundamental rule of accounting states that "all costs incurred to place assets into use, or to get inventory items ready for sale, should be capitalized into the cost of the asset."

Despite these attributes, paragraphs 32 and 33 (Inventory Held for Repair) of SFFAS No. 3 provide that entities should charge or credit the difference between actual and estimated repair costs to current period expense. However, when the process its correctly viewed as a process undertaken with the intent of rebuilding returned worn and used cores for subsequent resale, we believe that limiting the application of capitalized repair to estimated repair is not only inappropriate but, in fact, distorts the matching of cost of sales and revenue at time of sale.

Reconciliation of the historical cost requirements in Statement No. 3 with the requirements set forth in paragraphs 32 and 33 are problematic. The SFFAS No. 3 provides that entities value Inventory Held for Sale at historical cost. Paragraph 21 defines historical cost to “include all appropriate purchase, transportation and production costs incurred to bring items to their current condition and location." Inaddition, commercial accounting principles for inventory cost have always been guided by a fundamental rule of capitalization as stated in Accounting Research Bulletin 43, Chapter 4, Paragraph 5, as follows: “The primary basis of accounting for inventories is cost, which has been defined generally as the price paid or consideration given to acquire an

asset.” When applied to inventories, cost means, in principle, the "sum of all applicable expenditures and charges directly or indirectly incurred in bringing an article to its existing condition and location." Paragraphs 32 and 33 of Statement 3, however, impose restrictions on both cost capitalization and the value of carcasses. Paragraphs 32 and 33 require that regardless of the level of effort or cost incurred to rebuild items for resale, rebuild costs must be expensed as period costs if they exceed estimated repair. Secondly, paragraphs 32 and 33 dictate that carcass costs are not independent, but rather are a. function of the cost of related serviceable items less estimated repair. This principle ties the value of carcasses to the procurement cost of serviceable items and thus, subjects carcasses to a continuing revaluation unrelated to their cost.

Each year, the Department, through incentive exchange sales from our revolving funds or through directed returns, processes thousands of reparable item returns (i.e., carcasses) for subsequent repair/rebuild. Similarly, thousands of commercial firms obtain cores through exchange sales or through available market purchases for remanufacturing. The objectives of this business process in both instances are to: (1) establish an alternative source of supply that utilizes the main component of the items being rebuilt, and (2) repair/rebuild/remanufacture the carcasses or cores for subsequent resale. From an accounting perspective, we have to believe that commercial firms can only be capitalizing such costs into the cost of the products sold in lieu of period repair expense. It appears clear that reporting repair expenses for large-scale remanufacturing and resale operations would be in conflict with accepted accounting principles, would understate their inventory and cost of goods sold, and would mismatch costs and revenue at the time of sale. Based on these conclusions, and those attributes we summarized previously, the following and remaining paragraphs state our proposals for SFFAS No. 3 inventory repair principles.

We propose that Inventory Held for Repair be revisited in terms of the prevailing business process. As stated in our first and second attributes above, we believe that "inventory repair" per se is a rare event that, if viewed in terms of overall principles, will reveal source-of-supply and resale objectives.

We propose that "repair expense" be subjected to a critical and theoretical review in terms of "inventory repair." Textbook examples of repair expense versus repair capitalization typically make reference to real property and fixed assets. Capitalized repair is matched to revenue through depreciation charges. Since inventory is not depreciated, capitalized repair can, therefore, only match revenue as a part of cost of goods sold. We believe this is the correct answer; however, there is little, if any, accounting guidance in this area.

If it is concluded that large-scale inventory repair is undertaken primarily for the purpose of selling rebuilt/remanufactured items, we then propose that the question of cost capitalization be subjected to the general requirement to capitalize all costs to bring

inventory items to the point of sale. We believe this issue should also be subjected to the question of "asset value or life added" versus the objective of "resale." That is, it can be argued that if repair does not add substantial value or life to an inventory item, then it should be expensed. We believe that the sale objective and the matching of cost of goods sold should be the prevailing factor.

If it is concluded that inventory repair is a rebuild/resell process, we then propose that the valuation of carcasses/cores be independent of the cost of items held for sale. We believe that carcasses should be valued at "cost."

These proposals, depending on your consideration or conclusions, could bring to bear additional changes or findings. For example, recording carcasses at cost a and rebuilt items at full cost could negate the need for the allowance method or direct method and potentially revise the implementation adjustments currently stated in Paragraph 34 (i.e., reporting entities which accrued amounts for repair expense under previous standards based on estimated repair costs may be required to make subsequent adjustments for carcasses held at cost without an allowance). Paragraph 17(3) could be revised to include remanufactured components. In addition, it should be kept in mind that this letter addresses only inventory for sale (or repaired for ultimate resale). There are variations of repair and spare parts management in some industries (airlines for example) that repair or rebuild items for internal recycling only. These items, we believe, are accounted for as depreciable assets.

My staff will be pleased to work with you or anyone you deem to be appropriate on the FASAB staff on this issue and will provide any assistance or information that you determine to be necessary. Questions or requirements for additional information can be directed to my point of contact, Mr. Wayne Hudson. Mr. Hudson can be reached by phone at (703) 697-8281 or by e-mail at wayne.hudson@osd.mil.

Sincerely,

Teresa McKay
Deputy Chief Financial Officer

Attachment C

Draft Amendment to SFFAS 3

[32] Inventory Held for Repair **or Remanufacture**

Definition: "Inventory Held for Repair or Remanufacture" consists of direct materials (including reparable cores, also referred to as "carcasses" at DoD) and work-in-process related to the process of major overhauls, where products are restored to "good-as-new" condition and/or improved/upgraded condition for sale to customers.

Inventory held for repair may be treated in one of ~~two~~ **three** ways: (1) the allowance method, ~~or~~ (2) the direct method, **or (3) the "self-constructed assets" method.**

(1) Under the allowance method…[text unchanged]

(2) Under the direct method …[text unchanged

(3) Under the "self-constructed assets" method, the value of the reparable item shall be valued at cost to obtain it, including the credit given to the customer (if any) plus the cost of labor and any other inputs to bring the item to condition ready for sale. Capitalization shall be limited to:

a. For items that are available on the market as "new," the value of a remanufactured item that has not been upgraded should not exceed the cost of an item purchased as "new."

b. For items that are not available on the market as "new," and for upgraded items, the value of a remanufactured item should not exceed normal costs to produce. Abnormal costs, such as excessive freight, handling costs, amounts of wasted materials and excess fixed overhead due to abnormally low activity, should be reported as current period expenses rather than a portion of inventory value.

[Or, for (b), refer to paragraph 21 of SFFAS 3.]

Note: If the Board decides to address Operating Materials and Supplies Held for Repair, staff will develop additional draft amendments.

Attachment D

Selections from Draft DoD Internal Guidance
(Draft “DoD Financial Management Regulation”)

0518 REPARABLES.

051801. General. For material management purposes, "reparables" are items of supply subject to economical repair and for which the repair is considered in satisfying computed requirements at any inventory level. The DoD has always referred to the process of restoring its components to a serviceable condition for sale to a new customer as "repair". However, the private sector categorizes a nearly identical process as remanufacturing. In remanufacturing, the primary component is a used product. The used product is first dismantled, inspected, and cleaned. Then all missing, defective, or worn parts are restored to good working order or replaced with new or rebuilt parts. Finally, the product is overhauled, rebuilt, refurbished, repaired, or restored to a "good-as-new" condition for eventual sale to a new customer. Remanufactured products and components perform the same function and are of the same quality as new products, i.e. form, fit and function. Remanufacturing also allows for the integration of any new state-of-the-art systems or components that have been developed since the product originally was produced. Upgrades contribute to improved reliability, make products easier to maintain, incorporate safety advances, and reduce obsolescence. Items which are repaired/remanufactured shall be allocated all costs incurred to bring them to resale condition as inventory replenishment and resale is the objective of the repair/remanufacturing. Such allocation insures the matching of cost of sales and revenue at the time of sale.

051802. Level of Repairables. "Repairs" to carcasses can be performed at either depot or field level. A Depot Level Reparable (DLR) is an item for which condemnation can only be authorized at the depot level. Selected items that can be repaired at the field level are also managed as DLRs. Users must report these items to the integrated material manager for disposition instructions (either return to wholesale or transfer to DRMS) when repair cannot be accomplished at the field level. Authority to condemn a Field Level Reparable can be exercised below the depot level.

051803. Standard Price. The standard price for reparable items, including the cost recovery elements, shall be developed consistent with the policies prescribed for other items in the Supply Management activity group. Sales of reparable items made without a return shall be priced at the standard price. Previous to July 1996, exchange arrangements were not authorized for customers outside the federal government. An amendment to the Arms Export Control Act permits exchange agreements for foreign countries and international organizations that meet certain conditions. Subparagraph 050701.I, above, provides additional information. Sales to customers outside the Federal Government shall be priced in accordance with Volume 11A, Chapter 1, "General Reimbursement Procedures and Supporting Documentation," and Volume 15, Chapter 7, "Security Assistance Policy and Procedures, Pricing" of this Regulation.

051804. Carcass. A carcass is an economically reparable item that needs remanufacturing, repair, overhaul, or reconditioning to restore it to serviceable condition. A carcass can be acquired through an exchange sale, a material return, or retrieval from DRMS. As a component of inventory, carcasses must be valued at historical cost using the first in, first out (FIFO); weighted average; or moving average cost flow assumptions in arriving at the historical cost. Standard cost may also be used as described below in paragraph 051809. The historical cost of a carcass is the actual credit given to a customer or the amount a customer avoids paying by returning the carcass.

051805. Exchange Price. The customer shall be billed the exchange price, i.e. the established

repair cost plus the appropriate cost recovery elements at the time of issue if the requisitioning activity indicates a carcass will be returned. The exchange price for reparable items shall be determined by a homogeneous grouping such as National Stock Number (NSN), Federal Supply Classification (FSC), sub-classification, repair category, or material category. The exchange price shall be established and provided to customers before the beginning of each fiscal year for each homogeneous group and shall remain constant throughout the execution fiscal year.

051806. Calculation of Exchange Price. The exchange price shall be calculated on the most representative unit repair cost of the item plus the appropriate cost recovery elements to recover the cost of managing the item. The appropriate cost recovery elements shall consist of the same cost recovery elements used in the standard price calculation, plus a cost recovery element for carcass attrition (washout and loss).

051807. Time Limit for Receipt of Exchange Item. If a carcass is not received within 90 days of the exchange sale from a continental United States (CONUS) customer or 120 days for an outside the continental United States (OCONUS) customer, the credit previously allowed shall be reversed and the customer billed for that amount. Additionally, at the discretion of the stockage point, the customer may be billed for costs that would not have been otherwise incurred except for nonreceipt of the item.

051808. Illustration of Accounting for Inventory Held for Repair (Remanufacturing). Most items held for repair/remanufacturing are obtained as the result of an exchange transaction. The exchange transaction consists of the sale of a serviceable ready-for-issue item in exchange for (1) cash and (2) an item that needs rebuilding or repair, i.e. carcass. If the impaired item has not been received at the time of exchange, it shall be recorded in USSGL 1523 "Inventory Held for Repair (Remanufacture-Due In)."

A. Exchange of Serviceable Item for a Carcass

Dr 4221	Unfilled Customer Orders Without Advance	$800	
Cr 4132	Substitution of Contract Authority		$800
Dr 1523	Inventory Held for Repair (Remanufacturing-Due In)	$400	
Dr 6500	Cost of Goods Sold	$600	
Cr 1521	Inventory Purchased for Resale		$1,000
Dr 1310	Accounts Receivable	$800	
Cr 5100	Revenue from Goods Sold		$800
Dr 4251	Reimbursements and Other Income Earned – Receivable	$800	
Cr 4221	Unfilled Customer Orders Without Advance		$800

Entries to record an exchange sale for an asset with a MAC value of $1000, a carcass cost of $400, and an exchange sale price of $800.

B. Receipt of Carcass

Dr 1523 Inventory Held For Repair (Remanufacturing) $400
Cr 1523 Inventory Held For Repair (Remanufacturing-Due In) $400

Entry to record receipt of carcass from exchange sale customer

C. Carcass Not Received

1. Customer Shipped and Has Proof of Shipment

Dr 7290 Other Losses $400
Cr 1523 Inventory Held for Repair (Remanufacturing-Due In) $400

Entry to record loss on shipment of carcass due in

2. Customer Did Not Ship or Does Not Have Proof of Shipment

Dr 6500 Cost of Goods Sold $400
Cr 1523 Inventory Held for Repair (Remanufacturing-Due In) $400

Dr 4221 Unfilled Customer Orders Without Advance$400
Cr 4132 Substitution of Contract Authority $400

Dr 1310 Accounts Receivable $400
Cr 5100 Revenue from Goods Sold $400

Dr 4251 Reimbursements and Other Income Earned-Receivable $400
Cr 4221 Unfilled Customer Orders Without Advance $400

Entries to bill customer for carcass which was never shipped or for which there is no proof of shipment. Sale price of asset is $1200 and exchange price is $800.

D. Carcass Received Prior to Execution of Exchange Sale.

Occasionally, a carcass may be received prior to the execution of an exchange sale when no ready for issue items are available at the time the requisition is received. When this occurs, the carcass shall be recorded into inventory and a liability established. When serviceable items become available for issue, the liability shall be reversed and the exchange sale will proceed as normal. Entries for the establishment and elimination of the liability are as follows.

Dr 1523 Inventory Held for Repair (Remanufacturing) $400
Cr 2990 Other Liabilities (Carcasses) $400

Entry to record liability for receipt of a carcass with a value of $400 when exchange sale cannot be immediately executed because of nonavailability of ready for issue item

Dr 2990 Other Liabilities (Carcasses) $400
Cr 1523 Inventory Held for Repair (Remanufacturing) $400

Entry to reverse liability for receipt of a carcass with a value of $400 when exchange sale which was delayed because of nonavailability of ready for issue item can now be executed as shown in subparagraph, 051808.A, above

E. Reparable Items Sent to Contractor or to Repair Facility for Repair/Remanufacture.

Supply Management activities will place orders and obligate funds for repair/remanufacture work placed with contractor or at a government repair facility. While being repaired/remanufactured, carcass will remain in inventory of Supply Management activity. Activities may continue to account for carcasses as "Inventory Held for Repair (Remanufacturing)" or reclassify as "Inventory-Work in Process" while at a repair facility.

Dr 4610	Allotments-Realized Resources	$800	
Cr 4801	Undelivered Orders-Obligations, Unpaid		$800

Dr 4131	Current-Year Contract Authority Realized	$800	
Cr 4032	Estimated Indefinite Contract Authority		$800

OR, if the Inventory Work-In-Process account is used:

Dr 4610	Allotments-Realized Resources	$800	
Cr 4801	Undelivered Orders Obligations, Unpaid		$800

Dr 4131	Current-Year Contract Authority Realized	$800	
Cr 4032	Estimated Indefinite Contract Authority		$800

Dr 1526	Inventory-Work-In-Process	$400	
Cr 1523	Inventory Held For Repair (Remanufacturing)		$400

Entries to record order placed with contractor or at a government repair facility for repair/remanufacture of a carcass. Carcass has an inventory value of $400 and order to repair/remanufacture is for $800. Carcass may be reclassified as WIP when it is inducted for repair/remanufacturing.

F. Receipt of Remanufactured Item from Repair Facility. A remanufactured item is available for sale and is placed into the USSGL 1521 Inventory Purchased for Resale account upon return from a repair facility. Assume the carcass cost is $400 and the remanufacturing cost is $724. Remanufacturing costs for inventory are always capitalized. The accounting entries to accomplish this process are illustrated below.

Dr 1521	Inventory Purchased for Resale	$400	
Cr 1523	Inventory Held for Repair (Remanufacturing)		$400

Dr 1521 Inventory Purchased for Resale $724
Cr 2110 Accounts Payable $724

Dr 8802 Purchases of Capitalized Assets **$**724
Cr 8801 Offset for Purchase of Capitalized Assets **$**724

Dr 4801 Undelivered Orders-Obligations, Unpaid $724
Cr 4901 Delivered Orders-Obligations, Unpaid $724

OR, if the Inventory Work-In-Process account is used:

Dr 1526 Inventory-Work-in-Process $724
Cr 2110 Accounts Payable $724

Dr 8802 Purchases of Capitalized Assets **$**724
Cr 8801 Offset for Purchases of Capitalized Assets **$**724

Dr 4801 Undelivered Orders-Obligations, Unpaid $724
Cr 4901 Delivered Orders-Obligations, Unpaid $724

Dr 1521 Inventory Purchased for Resale $1,124
Cr 1526 Inventory-Work-in-Process $1,124

Entries to record receipt of remanufactured items from a repair facility. Carcass value was $400 and cost of repairs/remanufacturing is $724. Repair/remanufacturing costs are capitalized.

NOTE: When the item remanufactured at a cost of $1,124 is added to the Inventory Purchased for Resale, the MAC value for that NSN changes. The remanufacturing costs including the cost of the carcass are treated like purchase costs. (see Table 5-1, above.) For example if the inventory for a NSN contained 2 units at a MAC value of $1,238 and a third unit remanufactured at $1,124 was added to the inventory, the new MAC value for the NSN would be $1,200.

051809. Standard Costing for Carcasses. Standard costing may also be used to value the carcasses. A standard cost is the expected cost per unit. Standard costing must approximate historical costing. Standards are developed at least annually. For the inventories of Supply Management Activities with reparable items, the standard cost of a carcass within a NSN shall be the weighted average of the units on hand at historical cost and the budgeted cost of the carcasses to be acquired through exchanges or material returns. An inventory allowance account will be used to restate the inventory from historical to standard cost. The allowance account will either be an asset contra account or an asset adjunct account depending on whether carcass costs are increasing or decreasing for the subsequent fiscal year. When carcasses are acquired the difference between the standard cost of the carcass and the current cost of the carcass will be posted to an inventory allowance account as a purchase cost variance. Standards will be revised as necessary to align the standard cost for carcasses within an NSN as closely as possible to the historical cost so that when revenue is recognized at the point of sale, there is a proper matching of revenue and costs.

A. Determination of Standard Cost. Standard costs for the carcasses shall be developed at least annually using on hand units and anticipated units for the subsequent fiscal year. For example, for a particular NSN, a Supply Management Activity has 10 carcasses on hand at the end of a fiscal year with a plan to acquire 20 more during the subsequent fiscal year. The historical cost of the 10 on hand units is

$400 a unit and the established cost for the 20 units to be acquired is $430 a unit. Using a weighted average of 10 units @ $400 and 20 units @ $430, the standard cost for the carcasses for the subsequent fiscal year would be $420.

B. Restating Inventory Held for Repair (Remanufacturing) at Standard Cost. Once the standard cost of a group of carcasses within an NSN has been determined, the current inventory must then be restated at standard cost. This shall be done at least at the beginning of each fiscal year. Using the example in the above paragraph, the accounting entries to accomplish this process are illustrated below.

Dr 1523 Inventory Held For Repair(Remanufacturing)$200
Cr 1529 Inventory-Allowance (Changes in Standard) $200

Entry to restate 10 carcasses at an historical cost of $400 a unit to a standard cost of $420 a unit.

C. Acquiring Carcasses at Standard Cost. Each time a carcass is acquired, the carcass is posted to the inventory at standard cost with a corresponding entry to the purchase price variance account. The entry to the purchase cost variance account is the difference between the current cost of the carcass and the standard cost. For example, if $430 is the amount of credit given for a carcass on an exchange sale and the standard cost of the carcass is $420, then the entries for an exchange sale at standard cost are as follows.

Dr 4221	Unfilled Customer Orders Without Advance	$770	
Cr 4132	Substitution of Contract Authority	$770	
Dr 1523	Inventory Held for Repair (Remanufacturing-Due In)	$420	
Dr 1529	Inventory-Allowance (Purchase Cost Variance)	$ 10	
Dr 6500	Cost of Goods Sold	$570	
Cr 1521	Inventory Purchased for Resale		$1,000
Dr 1310	Accounts Receivable	$770	
Cr 5100	Revenue from Goods Sold	$770	
Dr 4251	Reimbursements and Other Income Earned – Receivable	$770	
Cr 4221	Unfilled Customer Orders Without Advance	$770	

Entries to record an exchange sale for an asset with a MAC value of $1000, a carcass cost of $430, a standard cost for the carcass of $420, and an exchange sale price of $770.

D. Revising the Cost Standards. The standard cost for a carcass must be revised if it is inaccurate and no longer approximates historical cost. Generally, for Supply Management Activities, this will occur when there is a substantial change in the number of anticipated carcasses for any NSN. NSNs with substantial variances from budgeted to actual acquisition of the carcasses will be assigned a new standard cost for the carcasses with an offsetting entry to the inventory allowance account. The revised standard is calculated in the same way as the original standard but uses revised anticipated amounts. For example, if in the above examples, the number of anticipated carcasses is revised downward from 20 carcasses to 10 carcasses then the revised standard would be determined as the weighted average of 10 on hand units at the end of the fiscal year @ $400 and the revised number of units to be acquired, i.e. 10 @ $430. The revised standard cost would be $415. If, for example, at the point that the standard was to be revised, 11 carcasses were on hand at a standard cost of $420 and 3 had already been inducted for repair/remanufacture using WIP, then the carcass inventory would decrease by $55 (11 on hand units with a standard cost change of $5) and WIP/Inventory Held for Sale/COGS would be decreased by $15 for the 3 units already inducted depending on where those units are in the production cycle. The required accounting entries to accomplish this process are illustrated below. Changing the standard cost of a carcass in no way affects the actual credit given to a customer or the amount a customer avoids paying by returning the carcass. It merely recognizes the fact that the quantity previously expected will probably not be realized and that better information is now available to determine the standard cost for the carcass.

Dr 1529	Inventory-Allowance (Changes in Standard)	$55	
Cr 1523	Inventory Held for Repair (Remanufacturing)		$55
Dr 1529	Inventory-Allowance (Changes in Standard)	$15	
Cr 1526	Inventory-Work-in-Process		$15

Entry to revise the standard cost of the carcasses for a particular NSN. Standard cost was revised downward from $420 to $415 a unit. There were 11 units on hand in Inventory Held for Repair (Remanufacturing) at the time of the revision and, in addition, 3 units had been inducted into Work-in-Process but had not yet been completed as finished goods.

E. Closing the Inventory Allowance Accounts. The inventory allowance accounts must be examined at the end of each fiscal year. If all carcasses were acquired exactly as anticipated, the sum of the inventory allowance account for changes in standards and the inventory allowance account for purchase cost variance would equal zero. Clearly, this will not be the case. However, if cost standards were properly maintained throughout the fiscal year and revisions made as necessary, then the absolute difference between the inventory allowance account for changes in standards and the inventory allowance account for purchase cost variance should be minor. Minor amounts in the inventory allowance accounts shall be closed to the cost of goods sold account. This adjustment will be a current period expense (or credit expense) for the Supply Management Activity. This entry shall be done as part of the pre closing entries. A minor variance between the end-of-the-fiscal-year inventory allowance accounts indicates that Inventory Held for Remanufacturing at standard cost closely approximates the historical cost of the carcass inventory. The entries to close the inventory allowance accounts are as follows:

Dr 1529 Inventory-Allowance (Changes in Standard) $1,236,526
Cr 1529 Inventory-Allowance (Purchase Cost Variance) $1,186,526
Cr 6500 Cost of Goods Sold $ 50,000

Or, if the allowance accounts are in a debit position:

Dr 6500 Cost of Goods Sold $ 50,000
Dr 1529 Inventory-Allowance (Changes in Standards) $1,186,526
Cr 1529 Inventory-Allowance (Purchase Cost Variance) $1,236,526

Entry to close the inventory allowance accounts to Cost of Goods Sold when the $50,000 difference between the two account amounts is considered to be minor

Note: If cost standards for carcasses are not properly set or revised, as required, then the net of the inventory allowance accounts at fiscal-year-end may be a significant amount. A significant amount in the inventory allowance accounts indicates standard cost does not approximate historical cost and that Inventory Held for Repair (Remanufacturing) and possibly, WIP and Inventory Held for Resale, are not valued properly. Cost of goods sold might also be over or understated. Therefore, there must be some allocation of the inventory allowance accounts to the inventory accounts and to cost of goods sold, as required. The inventory allowance accounts must be allocated prior to the preparation of the financial statements. The analysis should focus on the standard costs that should have been revised but were not. After an allocation has been determined for the financial statements, the individual NSNs with standard costs not approximating historical costs shall be adjusted as soon as possible but no later than the establishment of the new standard costs at the beginning of the next fiscal year.